

Claims

What is claimed is:

1. A method facilitating customized call processing comprising:
- a) providing a feature queue for each of a plurality of entities, each feature queue defining a sequence to initiate call features associated with an event for call processing;
 - b) receiving a trigger indicating an occurrence of the event for a call associated with one of the plurality of entities;
 - c) identifying the feature queue associated with the one of the plurality of entities corresponding to the event; and
 - d) processing the call to implement the call features in the sequence defined in the feature queue for the call.
2. The method of claim 1 wherein each of the plurality of entities may be one of a group consisting of an individual subscriber, a group of subscribers, and a combination thereof.
3. The method of claim 1 wherein the providing step comprises for each feature queue for the plurality of entities:
- a) creating the feature queue; and
 - b) defining the sequence to implement the call features for the feature queue.
4. The method of claim 1 wherein the providing step comprises for each feature queue for the plurality of entities:

- a) creating the feature queue; and
- b) defining the call features to include in the feature queue.

- 5 5. The method of claim 4 wherein the providing step comprises, for each feature queue for the plurality of entities, defining the sequence to implement the call features in the feature queue.
- 10 6. The method of claim 1 wherein each of the plurality of entities is associated with one telephony office and the providing step comprises:
- a) creating an office feature queue;
 - b) defining the sequence to implement call features for the office feature queue;
 - 15 c) creating each feature queue for the plurality of entities; and
 - d) defining the sequence to implement the call features for each feature queue based on the
 - 20 entity.
7. The method of claim 6 further comprising modifying the office feature queue.
- 25 8. The method of claim 6 wherein the defining step comprises inheriting the sequence to implement call features for the office feature queue for the feature queues for each of the plurality of entities and modifying the sequence to implement call
- 30 features on a per-entity basis.
9. The method of claim 6 wherein the plurality of entities includes a group entity associated with a

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group of subscribers and a subscriber entity associated with a subscriber and:

a) the defining step for the group entity comprises inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the group entity for a group entity feature queue; and

b) the defining step for the subscriber entity comprises one of the following steps:

- i) inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the subscriber entity for a subscriber entity feature queue; or
- ii) inheriting the sequence to implement call features for the group entity feature queue and modifying the sequence to implement call features for the subscriber entity for the subscriber entity feature queue.

~~10.~~ A method facilitating customized call processing comprising:

- a) providing a standard feature queue for an office having a plurality of subscribers, the standard feature queue including call features associated with an event and defining a sequence to initiate the call features for call processing;
- b) identifying a group of subscribers;
- c) creating a group feature queue for the group of subscribers, the group feature queue including call features associated with the event and defining the sequence to initiate the call

features for call processing for the group of subscribers; and

- d) creating a subscriber feature queue for a given subscriber in the plurality of subscribers, the subscriber feature queue including call features associated with the event and defining the sequence to initiate the call features for call processing for the subscriber.

11. The method of claim 10 further comprising:

- a) receiving a trigger indicating an occurrence of the event for a call; and
b) processing the call to implement the call features in the sequence defined in an associated feature queue for the call.

12. The method of claim 11 wherein the associated feature queue is the subscriber feature queue for the given subscriber, the group feature queue for a subscriber in the group, and the standard feature queue for a subscriber other than the given subscriber and not in the group.

13. The method of claim 12 further comprising modifying the sequence to implement the call features for the standard feature queue.

14. The method of claim 10 comprising:

- a) receiving instructions to modify one of the group feature queue and the subscriber feature queue; and
b) modifying the one of the group feature queue and the subscriber feature queue based on the instructions.

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15. A system facilitating customized call processing comprising:

- 5 a) an interface to receive triggers for a call processing event occurring during a call; and
b) a control system associated with the interface and adapted to:

- 10 i) provide a feature queue for each of a plurality of entities, each feature queue including call features defining a sequence to initiate call features associated with an event for call processing;
15 ii) receive a trigger indicating an occurrence of the event for a call associated with one of the plurality of entities via the interface;
iii) identify the feature queue associated with the one of the plurality of entities corresponding to the event; and
20 iv) process the call to implement the call features in the sequence defined in the feature queue for the call.

25 16. The system of claim 15 wherein each of the plurality of entities may be one of a group consisting of an individual subscriber, a group of subscribers, and a combination thereof.

30 17. The system of claim 15 wherein the control system, for each feature queue for the plurality of entities, is further adapted to:
a) create the feature queue; and

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- b) define the sequence to implement the call features for the feature queue.

18. The system of claim 15 wherein the control system,
5 for each of the feature queues for the plurality of
entities, is further adapted to:

- a) create the feature queue; and
- b) define the call features to include in the feature queue.

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19. The system of claim 18 wherein the control system, for each feature queue for the plurality of entities, is further adapted to define the sequence to implement the call features in the feature queue.

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20. The system of claim 15 wherein each of the plurality of entities is associated with one telephony office and said control system is further adapted to:

- a) create an office feature queue;
- b) define the sequence to implement call features for the office feature queue;
- c) create each feature queues for the plurality of entities; and
- d) define the sequence to implement the call features for each feature queue based on the entity.

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21. The system of claim 20 wherein said control system is further adapted to modify the office feature queue.

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22. The system of claim 20 wherein said control system is further adapted to define the sequence to implement the call features by inheriting the

sequence to implement call features for the office feature queue for the feature queues for each of the plurality of entities and modifying the sequence to implement call features on a per-entity basis.

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23. The system of claim 20 wherein the plurality of entities includes a group entity associated with a group of subscribers and a subscriber entity associated with a subscriber and said control system is further adapted to:

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a) define the sequence to implement the call features for the group entity by inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the group entity for a group entity feature queue; and

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b) define the sequence to implement the call features for the subscriber entity by either:

i) inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the subscriber entity for a subscriber entity feature queue; or

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ii) inheriting the sequence to implement call features for the group entity feature queue and modifying the sequence to implement call features for the subscriber entity for the subscriber entity feature queue.

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24. A system for facilitating customized call processing comprising a control system adapted to:

a) provide a standard feature queue for an office having a plurality of subscribers, the standard

feature queue including call features associated with an event and defining a sequence to initiate the call features for call processing;

- 5 b) identify a group of subscribers;
- c) create a group feature queue for the group of subscribers, the group feature queue including call features associated with the event and defining the sequence to initiate the call
- 10 features for call processing for the group of subscribers; and
- d) create a subscriber feature queue for a given subscriber in the plurality of subscribers, the subscriber feature queue including call
- 15 features associated with the event and defining the sequence to initiate the call features for call processing for the subscriber.

25. The system of claim 24 wherein said control system is further adapted to:

- 20 a) receive a trigger indicating an occurrence of the event for a call; and
- b) process the call to implement the call features in the sequence defined in an associated
- 25 feature queue for the call.

26. The system of claim 25 wherein the associated feature queue is the subscriber feature queue for the given subscriber, the group feature queue for a

30 subscriber in the group, and the default feature queue for a subscriber other than the given subscriber and not in the group.

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27. The system of claim 26 wherein said control system is further adapted to modify the sequence to implement the call features for the standard feature queue.

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28. The system of claim 24 wherein said control system is further adapted to:

a) receive instructions to modify one of the group feature queue and the subscriber feature queue;

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and

b) modify the one of the group feature queue and the subscriber feature queue based on the instructions.

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29. The system of claim 24 further comprising an interface to communicate with an associated telephony switching device wherein said control system and said interface cooperate to form a call server and are adapted to provide call processing for the switching device.

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30. The system of claim 24 further comprising an interface to communicate with an associated telephony switching device wherein said control system and said interface cooperate to form a call server and are adapted to provide call processing for the switching device.

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31. The system of claim 24 further comprising a circuit-switched interface to facilitate circuit-switched communications with a plurality of telephony devices wherein said control system and said circuit-switched interface cooperate to form a telephony switching device adapted to provide call processing.

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a) providing a feature queue for each of a plurality of entities, each feature queue defining a sequence to initiate the call

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features associated with an event for call
processing;
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- b) receiving a trigger indicating an occurrence of the event for a call associated with one of the plurality of entities;
- c) identifying the feature queue associated with the one of the plurality of entities corresponding to the event; and
- d) processing the call to implement the call features in the sequence defined in the feature queue for the call.

38. The computer readable medium of claim 37 wherein each of the plurality of entities may be one of a group consisting of an individual subscriber, a group of subscribers, and a combination thereof.

39. The computer readable medium of claim 37 further comprising instructions for providing each feature queue for the plurality of entities by:

- a) creating the feature queue; and
- b) defining the sequence to implement the call features for the feature queue.

40. The computer readable medium of claim 37 further comprising instructions for providing each feature queue for the plurality of entities by:

- a) creating the feature queue; and
- b) defining the call features to include in the feature queue.

41. The computer readable medium of claim 37 wherein each of the plurality of entities is associated with a telephony office and comprising instructions for

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providing each feature queue for the plurality of entities by:

- a) creating an office feature queue;
- b) defining the sequence to implement call features for the office feature queue;
- c) creating each feature queue for each of the plurality of entities; and
- d) defining the sequence to implement the call features for each feature queue based on the entity.

42. The computer readable medium of claim 41 further comprising instructions for modifying the office feature queue.

43. The computer readable medium of claim 41 wherein the instructions for defining the sequence to implement the call features further comprise inheriting the sequence to implement call features for the office feature queue for the feature queues for each of the plurality of entities and modifying the sequence to implement call features on a per-entity basis.

44. The computer readable medium of claim 41 wherein the plurality of entities includes a group entity associated with a group of subscribers and a subscriber entity associated with a subscriber and the instructions for defining the sequence to implement the call features further comprise:

- a) for the group entity, inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the group entity for a group entity feature queue; and

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b) for the subscriber entity, either:

i) inheriting the sequence to implement call features for the office feature queue and modifying the sequence to implement call features for the subscriber entity for a subscriber entity feature queue; or

ii) inheriting the sequence to implement call features for the group entity feature queue and modifying the sequence to implement call features for the subscriber entity for a subscriber entity feature queue.

45. A computer readable medium comprising software instructions for a computer to facilitate customized call processing by:

a) providing a standard feature queue for an office having a plurality of subscribers, the standard feature queue including call features associated with an event and defining a sequence to initiate the call features for call processing;

b) identifying a group of subscribers;

c) creating a group feature queue for the group of subscribers, the group feature queue including call features associated with the event and defining the sequence to initiate the call features for call processing for the group of subscribers; and

d) creating a subscriber feature queue for a given subscriber in the plurality of subscribers the subscriber feature queue including call features associated with the event and defining

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the sequence to initiate the call features for call processing for the subscriber.

46. The computer readable medium of claim 45 further
5 comprising instructions for:
- a) receiving a trigger indicating an occurrence of the event for a call; and
 - b) processing the call to implement the call
10 features in the sequence defined in an associated feature queue for the call.
47. The computer readable medium of claim 46 wherein the
15 associated feature queue is the subscriber feature queue for the given subscriber, the group feature queue for a subscriber in the group, and the default feature queue for a subscriber other than the given subscriber and not in the group.
48. The computer readable medium of claim 47 further
20 comprising instructions for modifying the sequence to implement the call features for the standard feature queue.
49. The computer readable medium of claim 45 further
25 comprising instructions for:
- a) receiving instructions to modify one of the group feature queue and the subscriber feature queue; and
 - b) modifying the one of the group feature queue
30 and the subscriber feature queue based on the instructions.

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